

**Girls Matter:  
Understanding “Our” Girls**



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Juvenile Justice Vision 2020  
2016 Fall Conference  
Grand Valley State University  
October 28, 2016

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**Presentation Goals**

- ▶ Increased understanding about female-specific programming concepts
- ▶ Increased knowledge of nature-based theory/neurobiological differences between boys and girls – brain differences
- ▶ Enhanced abilities to work with youth, parents, and others more effectively by applying brain based knowledge in the workplace
- ▶ Explore female-specific treatment approaches

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**Why Girls?**

- Brain science reveals some dramatic differences – structurally, developmentally, functionally and hormonally - that applies to what we do with and for girls in our system.
- Girls manifest more mental health disorders. We need to understand why.
- The number of girls in the courts is remaining constant over time, whereas the boys' numbers have significantly lowered. Why?
- There is a high probability girls are the primary care takers of tomorrow's generation.




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## Why Girls?

- What about the boys?
- Boys and girls who enter the juvenile justice system have unique needs
- Courts are not well prepared for girls in the system; girls escalate through the system faster
- Girls experience significant, long term histories of trauma and their journey into the legal system is different than boys.
- Girls require different services than boys

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## Why Girls?

To learn more:

Delores Barr Weaver Policy Center  
<https://www.seethegirl.org/why-girls/>




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## Media Influence

- Media hype has strongly portrayed female delinquents as just as violent as males, but the data does not back this up.
- <https://www.youtube.com/watch?v=3d0IMwudwcc>
- *“Juvenile female involvement in violence has not increased relative to juvenile male violence. There is no burgeoning national crisis of increasing serious violence among adolescent girls.”* (Zahn, et al, 2008, p.15)

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- Data on adolescent female offenses remains consistent over the decades.
  - The majority of system-involved girls continue to be "status offenders"
    - Runaway
- Homelessness and social media are an increasing problem placing girls at more risk of victimization
- Larceny and Runaway account for approx. 50 % of all female arrests.
- Prostitution/human trafficking are also significant and rising = more victimization





## What Statistics Tell Us

- ▶ Gender Arrest Ratios
  - 1960's: 14 boys / 1 girl
  - 1970's: 10 boys/1 girl
  - 1980's: 9 boys/1 girl
  - 2000's: 4 boys/1 girl
- ▶ Gap in criminal involvement between boys and girls is closing
- ▶ Female delinquency, in general, is not as serious as delinquency in boys
- ▶ Research suggests public policy that targets female offenders and the fact that female delinquents remain "invisible" to the courts unless escalated are contributing factors.

**Adolescent Female Offender Profile**

- ▶ Economically disadvantaged
- ▶ History of substance abuse - personal/family
- ▶ Consistently exposed to heightened levels of family aggression
- ▶ Victim of physical, sexual, emotional abuse
- ▶ Educationally deprived or limited
- ▶ If runaway, living in an abusive situation

**Adolescent Female Offender Profile**

- Alone with no appropriate or trusted adult female or male relationships
- Often young mothers
- Limited career options
- Desire an education and independence
- Much less likely to be convicted of a violent crime
- Manifests/diagnosed with mental health disorders




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**Insights into Adolescence and The Brain**




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**Adolescence**

- Aristotle concluded more than 2,300 years ago "the young are heated by Nature as drunken men by wine."
- A shepherd in William Shakespeare's *The Winter's Tale* wishes "there were no age between ten and three-and-twenty, or that youth would sleep out the rest; for there is nothing in the between but getting wenches with child, wronging the ancients, stealing, fighting." His lament colors most modern scientific inquiries as well.
- G. Stanley Hall formalized adolescent studies with his 1904 *Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education*, and believed this period of "storm and stress" replicated earlier, less civilized stages of human development.
- Freud saw adolescence as an expression of torturous psychosexual conflict.
- Erik Erikson, stated it is the most tumultuous of life's several identity crises. Adolescence: always a problem.

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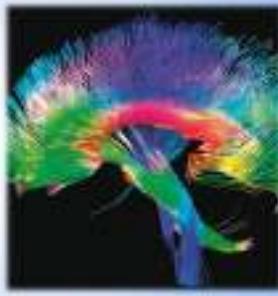
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**Technology & the Brain**

- ▶ Brain research is incomplete and it's complicated!
- ▶ Technology has given us some insight into the adolescent brain




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**Technology and the Adolescent Brain**

- ▶ The advent of technology and the first study of teen brains in the early 1990s showed us that massive reorganization occurs in the brain between the ages of 12 and 25.

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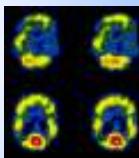
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**Technology & The Brain**

- ▶ Neuroscience – the study of brain development – has developed over the past decades due to increased technology capabilities
- ▶ Magnetic Resonance Imaging (MRI)
- ▶ Functional MRI ( fMRI)
- ▶ Single-photon Emission Computerized Tomography (SPECT) Scans
- ▶ PET – CT – Combines Computerized Tomography with X-ray




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### What We Have Learned

- The brain has a powerful ability to **change, adapt, and rewire itself throughout life.**
- It changes how it uses its genetic code, in **response to life experiences**
- Stimulation, nutrition, exercise, stress, trauma, injury all **modify this growth rate of neurons**
- Adolescence is a period of life in which there is remarkable brain growth and change

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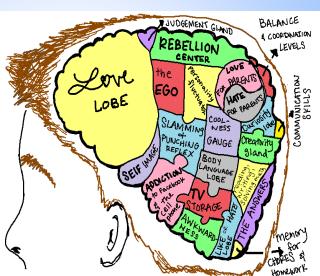


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### THE AVERAGE TEENAGE BRAIN




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### The Adolescent Brain

- Different parts of the brain mature at varying rates during adolescence.
- Prefrontal Cortex which includes areas that mediate "executive functioning" mature later than areas responsible for basic functions.




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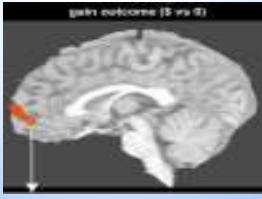
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### The Adolescent Brain

- Medial Prefrontal Cortex(mPFC): Less active during adolescence than in adulthood



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### The Adolescent Brain

- mPFC: Mediates decision-making; creates associations between context, locations, events, and corresponding adaptive responses, particularly emotional responses; interacts with the lateral prefrontal cortex to form perceptions, understanding of others and self, etc.
  - Hyper-sensitive during adolescence
  - Makes adolescents more prone to risk taking, especially with friends
  - Studies reveal adolescents have a reduced capability to read the emotions and feelings of others

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### The Adolescent Brain

- What is this woman feeling?



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**The Adolescent Brain**

- ▶ Answer: Fear
- ▶ Study by University of Utah, 100% of adults guessed this woman's emotion correctly, but only 50% of teenagers (ages 10 – 18) got it right.

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**The Adolescent Brain**

- ▶ The Limbic System: The "emotional brain"
- ▶ Composed of the amygdala, the hippocampus, and the hypothalamus.
- ▶ Involved in the expression of emotions and motivation, particularly those related to survival, e.g. fear, anger, and the "fight or flight" response.
- ▶ Involved in feelings of pleasure that reward behaviors related to species survival, such as eating and sex.

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**The Adolescent Brain**

- ▶ Teens rely more on the emotional region of their brains when reading others' emotions, which is more impulsive as opposed to a logical or measured interpretation.




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**The Adolescent Brain**

- More self-conscious and impulsive
- More risk-taking




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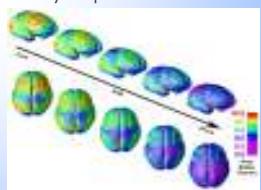
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**The Adolescent Brain**

- Gray matter and synapse pruning
  - Synapses = connections between brain cells or neurons; the basis of the working circuitry of the brain
  - Pruning is the loss of synapses as a child matures;
  - Makes the brain more efficient.




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**The Adolescent Brain: Review**

- Impulse control, planning and decision-making are largely prefrontal cortex functions that are still maturing during adolescence
- Adults respond to stimuli more intellectually; a teen's response is more "from the gut".
- The malleability of a teen's brain is well-suited for the demands of teen life, but guidance from adults is critical
- Intelligence may be matched to an adult's, but behavior is impacted differently due to engaging different parts of the brain.

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## The Adolescent Brain: Review

- Planning, adaptation to social environments, anticipating consequences of actions and appropriately gauging emotional significance is still "under construction".
- Connecting gut feelings with memories, placing situations into context and remembering past details important to a situation is still "under construction"!

## The Adolescent Brain: Review

The Problem is...

Teenagers can look like adults when they are still "kids"

- Creates tension between adults and adolescents
- Their looks are deceiving, and we forget they are not adults
- Results: Formal systems treating kids like "mini-adults"

We live in a "one size fits all, unisex" society; economy of scale;

- It doesn't work. One size only fits one!
- We need to individualize services based on needs of youth in juvenile courts.



## The Adolescent Brain

- When talking about the brain, there are similarities between male and female brains, but the activity and blood flow is significantly different resulting in different motivations and behaviors
- In the female brain:
  - There are stronger connecting pathways between parts of brain
  - Greater language and fine motor skills
  - More intuitive sense; fewer parts of brain used in tasking

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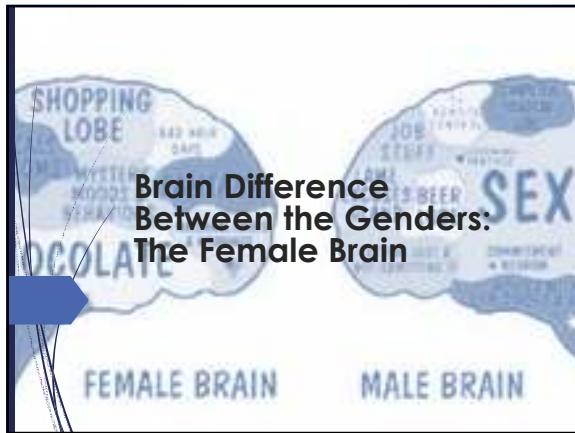
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### Brain Differences Between the Genders

- ▶ Girls think and act differently than boys!
- ▶ Their brains are developmentally, functionally, structurally and hormonally different than boys.

A blue arrow points to the left side of the slide, where the title and bullet points are located. To the right is a colorful illustration of a brain growing out of a terracotta pot, with a small flower sprouting from the top of the brain.

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### Brain Differences Between the Genders

- ▶ Girls brains are physically smaller than male brains
- ▶ Brain flow differs; girls' brains never shut down
- ▶ Girls - rely more on verbal skills
- ▶ Boys - rely more on nonverbal communication; more visual
- ▶ There are brain chemical differences, too!
- ▶ Girls take in more sensory data than boys.
- ▶ Note: Importance of appropriate touch

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**Brain Differences Between the Genders**

Girls brains are structurally different from boys:

**The male and female brain:**

A new way of viewing the connectivity of the brain – called “connectome” maps – reveals significant differences between men and women.

**Thalamic nuclei**  
Prefrontal  
More connections in men than in women, particularly in the left hemisphere.  
Prefrontal  
More connections in women than in men, particularly in the right hemisphere.

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**Brain Differences Between the Genders**

Female brains are functionally different...

- Female brain is relational
- Female brain uses 7 – 8 parts of brain for verbal and language skills; FOXP2 (genetic protein) higher in females
- Hippocampus is up to 25% larger
- Corpus callosum is up to 20% larger
- Anterior Cingulate Cortex is larger; may result in more moodiness, worry-prone, anxiety and stress experience

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**Brain Differences Between the Genders**

- Prefrontal Cortex is larger; develops earlier; results in more impulse control (but activity slows during adolescence!)
- Insula is larger; home of the “gut instinct”, female brain is intuitive; male brain more deductive
- Amygdala is smaller; center for strong emotion – anger, fear; females less likely to take risks

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### Brain Differences Between the Genders

Girls' needs are different due to different hormones...

- Hormones have great impact – physically and emotionally – e.g. oxytocin, vasopressin, estrogen, progesterone are generated at a higher rate in females; testosterone is lower
- Prolactin starts around age 10; 60% more tear production
- Females need a sense of belonging; rejection and isolation is devastating
- Female brains bond through relational imperative; Male brains are visual; bond through performance




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**Girls and Mental Health Disorders**

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### Girls Manifest More Mental Health Disorders

- Mood disorders
- Personality disorders
- Oppositional Defiant Disorder
- Conduct Disorder
- Reactive Attachment Disorder
- Anxiety Disorder
- Learning Disorders
- Emotional Impairments




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**Girls Manifest More Mental Health Disorders**

- ▶ Other Disorders
  - Substance Abuse
  - Co-Occurring Disorders
  - Cutting/Self-Mutilation/SIB aka "NSSI"
  - Eating Disorders
  - Trichotillomania

Note: Become familiar with psychotropic drugs, etc.

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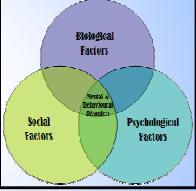


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**Girls Manifest More Mental Health Disorders**

Concern:

- ▶ Over-diagnosis can lead to over-treatment. This can compound negative outcomes.
- ▶ Psychotropic drugs may prevent girls from learning how to self regulate moods, etc.
- ▶ Use diagnosis to inform the case/treatment plan
- ▶ Always strive to be holistic in the approach




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**Gender Differences Effects of Alcohol/Drugs**

- ▶ Trigger the already hyper-sensitive medial prefrontal cortex (pleasure center); prevent the wiring of the brain to "stop" or weigh the consequence of use
- ▶ Heavy drug use during critical brain development times may cause permanent changes in the way it works and responds to rewards and consequences.




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## Gender Differences Effects of Alcohol/Drugs

- Chemical messenger, dopamine, increases capacity to learn in response to reward;
- Dopamine inputs to prefrontal cortex grow dramatically during adolescence
- Teen drinking and intense drinking = risk factors for future alcohol dependency

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## Gender Differences Effects of Alcohol/Drugs

**Health Risks**

- Greater vulnerability to cerebral atrophy and other brain-related conditions; significant difference between amounts of gray and white matter in brain among drinking and non-drinking females
- Increased risk of breast cancer
- Infertility, early menopause and osteoporosis
- Pregnancy complications; low birth weights; premature births

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## Gender Differences Effects of Alcohol/Drugs

- Females more likely to develop liver and other related diseases with faster progression.
- Level of alcohol dehydrogenase (enzyme assoc. w/ metabolism) is lower in females
- Liver more sensitive to toxic effect of chronic alcohol intake
- Develop liver disease (cirrhosis/hepatitis) after comparatively shorter periods and less intense drinking than males

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Gender Differences  
Effects of Alcohol/Drugs

- Significant higher rates of impairment; depleted physical and mental health condition with shorter duration of lifetime drinking and lower lifetime dose
- Achieve higher concentrations in blood after drinking same amount
- Significant higher death rate



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Gender Differences  
Effects of Alcohol/Drugs

- Females using psychotropic drugs are significantly more likely to develop dependence
- Females have unique treatment needs in treatment of substance abuse issues
  - Female-only programs improve outcomes; accommodate lesbian, HIV + pop
- Drug(s) of choice: drugs mixed with alcohol

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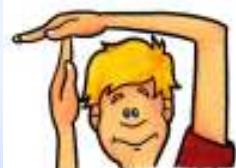
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Break – 30 minutes

Please visit the vendor show!



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**Brain Science Implications and Treatment Approaches**

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**Implications and Treatment Approaches**

- ▶ Consider the neurobiology of the teen brain when trying to understand teen decision making and behavior
- ▶ Girls need supportive, caring, mentoring adults in their lives on a sustained, consistent basis so help them learn specific skills and appropriate adult behavior
- ▶ Consider the power of girls shaping their brain through learning and positive experiences; this results in complex, adaptive, healthy brains!

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**Implications and Treatment Approaches**

- ▶ Girls take fewer risks than boys, but...
- ▶ Girls are going to take risks, especially if there is a boy involved!  
**Plan for it.**

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## Implications and Treatment Approaches

- Consider gender brain differences in treatment approaches with youth; what works for girls doesn't necessarily work for boys
  - Remember the relational, intuitive quality of the female brain
  - May need to monitor, connect with and support girls more than boys
  - May need to provide medical services/comprehensive services to females
- Need to educate parents about brain differences and how they apply to their daughter(s)
- Juvenile drug court needs to include gender-specific strategies
- Provide role models and mentors - sustained, long-term, consistent mentoring by appropriate female and male adults is critical!

## Implications and Treatment Approaches

- Girls need to feel safe, connected, given opportunities to express themselves.
- Address the trauma with care.



## Use risk/needs assessments validated for females!

- Helps determine risk for re-offense and identify needs more specifically to girls
- Measures girl's progress
- Must be extensively researched with significant numbers of girls in research pool
- Must be validated instruments for both genders




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**Implications and Treatment Approaches**

- Generally, juvenile detention only is not a treatment destination and doesn't work as a method of treatment for girls




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**Implications and Treatment Approaches**

- Girls are motivated differently than boys
- Girls won't do something or comply because you tell them to or threaten them with consequences...

**They comply because they LIKE you.**




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**Treatment Approaches**

- Address the trauma
- Structured storytelling; journaling
- Include information about victimization; help to "move on" through empowerment and information
- Develop relationships with the girls with appropriate boundaries; seek to understand their behaviors before judging
- Teach girls critical thinking

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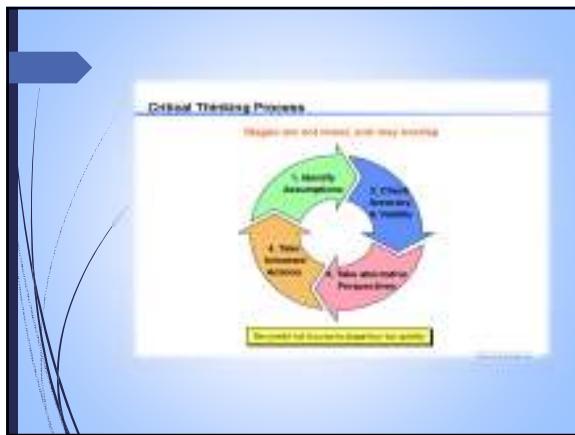
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### Treatment Approaches

- Family engagement is critical when possible
- Educate! Educate! Educate!
- Develop/offer vocational skills and opportunities
- Offer fitness/physical confidence programs
- Teach/model tolerance, respect and appropriate boundaries
- Teach them life skills

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### Treatment Approaches

- Design individualized treatment plans utilizing your understanding of brain differences
- Build collaborative relationships with community partners to help youth succeed.
- Introduce them to community resources and access procedures.

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**Treatment Approaches**

- Use art and/or music as a form of expression and a grounding technique




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**Treatment Approaches**

- Build accountability into programming without abandoning the relationship
- Ask what strengths does this girl have; what strengths does the family have to build upon?

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**Treatment Approaches**

NSSI - SIB/Cutter Girls

- Engage the five senses; use weighted blankets, pillows, music, ice, rubber bands, etc.
- "Impulse Log"
- "Possible Selves" Questionnaire
- 5 Alternatives Technique
- "Treatment/Safety Contract"

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**Treatment Approaches**

- Monitor social networking
  - Thousands of illegitimate on-line "pharmacies"
  - Major source for kids to obtain illicit and prescription drugs
  - Plethora of chat rooms and how-to books/videos teaching how to evade detection of everything




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**Treatment Approaches**

- Teach girls how to feel; help them label what they are feeling, and how to heal.
- Create leadership
- The best treatment approach is a comprehensive, strength-based, relational, youth and family centric program that helps a girl create a *vision of their life* beyond the past.




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**Treatment Approaches**

- Include the six domains of adolescent development in female-specific programming
  - Emotional
  - Spiritual
  - Physical
  - Relational/familial
  - Sexual
  - Intellectual




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**Treatment Approaches**

- Remember - Females relieve stress by forming emotional connections
- Use promising practices or evidence based programs designed for girls
- You cannot paint the walls pink and call it a girls program; it just doesn't work that way.
- Trusting relationships take time with girls; work on it and the outcomes will improve.

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**OJJDP - Critical Programming Principles for Girls**




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**Critical Programming Principles for Girls - General**

- Make certain their environment is physically, emotionally and psychologically safe
- Traditional behavior management systems are not rooted in female-specific research
- Use a relational, strengths-based approach in the absence of relationship rules; inspire rebellion in girls; relationships and responsibility are factors that motivate girls to achieve
- Program must be trauma sensitive and family focused
- Program must be culturally competent, respecting all aspects of life
- Include the girls' voices in the programming or treatment plan whenever possible
- Individualized treatment/case plans are critical

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**Critical Programming Principles for Girls - Probation**

- Enhance JCOs/POs skills to identify risk and needs through root-cause analysis of presenting problems.
- Intervene in the cycle of court involvement utilizing a relational, strengths-based approach.
- Link girls to appropriate programs based on risk, needs AND strengths.
- Advocate for the services girls really need, not just those already available.
- Review court/org. policies and commit to strengths-based, relational, trauma sensitive approach.
- Hold staff accountable to established FS practices and be role models.

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**Critical Programming Principles for Girls - Detention**

- Create a culture that supports gender-specific philosophy and practice those principles
- Include community involvement and opportunities whenever possible
- Review strengths and challenges daily with girls, and give the girl a voice; help her find her voice!
- Create a culture of learning within the staff working in the facility.




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**Remember...**

**Our girls need YOU!**

**You may never know when you have touched a girl's life with a gift of kindness, patience, skill mastery or accountability.**

**This is important, hard work, but it is worth it!**




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JUVENILE JUSTICE  
VISION 20/20

**Questions & Answers?**

- Contact information: [smetcalf@miottawa.org](mailto:smetcalf@miottawa.org)

**Thank you!**

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